



Student Experience and Behavioral Implications of Portfolio Assignments A Cross-Departmental, Mixed-Methods Study

Liebst, Lasse Suonperä; Simonsen, Anja

Publication date:
2018

Document license:
[Ikke-specificeret](#)

Citation for published version (APA):
Liebst, L. S., & Simonsen, A. (2018). *Student Experience and Behavioral Implications of Portfolio Assignments: A Cross-Departmental, Mixed-Methods Study*. Sociologisk Institut, Københavns Universitet.

Student Experience and Behavioral Implications of Portfolio Assignments: A Cross-Departmental, Mixed-Methods Study

Lasse Suonperä Liebst and Anja Simonsen
University of Copenhagen
2018

Abstract. Portfolio assignments are increasingly adopted in higher education, including at the University of Copenhagen. The purpose of the current project is to evaluate the implementation of portfolio exams at the Department of Anthropology and Sociology. We conducted interviews with eight students from both departments as well the Heads of Studies and teachers with portfolio hands-on experience. Qualitative results suggest that the students are overall positive towards portfolio assignments, although several challenges are also identified. These include little guidance for teachers and students, weak course structure, and the experience of lacking student skills in the provision of feedback. Moreover, we collected quantitative data of exam grades and enrolments across 20 thematically comparable anthropology courses, with and without portfolios implemented. Using this data, we tested whether portfolio assignments are associated with higher exam grades and enrolment levels. Statistical results reject both predictions. Taken together, the current project highlights that portfolio exams may improve the student experience, without being reflected in positive behavioral changes. We close our argument by providing a number of recommendations.

INTRODUCTION

Within the last few years, portfolio assignments have been widely adopted by the Departments of Anthropology and Sociology.¹ A portfolio is here understood as an assignment comprising of a number of small assignments, addressing one or several questions, as specified in the course. The adoption of the portfolio exams at these two departments is initially meaningful, given that evidence indicates that portfolio based courses may improve student participation and satisfaction as well as the quality of learning outcomes (Davis et al. 2009; Mubuuke et al. 2010; Buckley et al. 2010; Kariman & Moafi 2011). This literature also mentions issue that may jeopardize the implementation of portfolios, however (Carpenter et al. 1995). As such, it cannot be assumed that the introduction of the portfolios exam will automatically lead to positive results. Adding to this potential issue, the two departments have

¹ The current paper was handed in as part of the authors' participation in The Teaching and Learning in Higher Education Programme (TLHE) at University of Copenhagen.

not conducted a systematic evaluation of their portfolio practices and the aim of the current TLHE project is to convey such knowledge.

To this end, the two authors of the current project—employed at Department of Anthropology and Sociology, respectively—found it useful to conduct a cross-departmental study of how the portfolios are implemented. By comparing the different institutional experiences, it may be easier to grasp what works and what does not work. Moreover, we see an underutilized potential of learning from one another's practices, the successes and failures alike. Stressing this potential is the circumstance that the portfolio exam was introduced at Anthropology and then, in turn, was taken as a source of inspirations at Sociology. However, besides this initial inspiration, there has been little shared evaluation or exchange of experiences across the departments. As such, the current project may be considered an attempt to reinvigorate this cross-departmental dialogue.

More specifically, we are interested in two questions, which will be addressed with qualitative and quantitative methods, respectively. First, we examine how the students experience the portfolio assignments, captured through semi-structured interviews with students from both departments. Here, the question is how the students perceive the exam form and how it is incorporated in their study practices. Additionally, we interviewed the two Head of Studies as well as two teachers with portfolio experience.

Second, we statistically examined whether courses with portfolio exams have positive, behavioral implications. Specifically, we test whether portfolios are associated with higher student grades and higher level of exam enrolment. These hypotheses were pre-specified prior to data analysis and are both expected from the positive evaluations of portfolio assignments in the scholarly literature. Thus, as mentioned, portfolios have been linked with improved quality of learning outputs (Buckley et al. 2010) and increased student motivation and participation (Tiwari & Tang 2003).

QUALITATIVE ANALYSIS

In total, we conducted eight student interviews. Four sociology students (two bachelor, two master) and four with students from the course “The Anthropology of Migration, an Introductory Course”—an elective MA/BA course at the Department of Anthropology (fall of 2017), taught by the anthropological author of the current project. The anthropology students were selected as interviewees based the following criteria: how far they were in their studies; whether they were Danish or international students; and the grade they had received at the final exam. The mixed educational background of the students represents the actual composition of this particular course that admits a very broad group of students. Further, the sociology students were selected to represent bachelor and masters students, respectively, given that the Head of Studies hinted that the level of student experience would be particularly interesting to consider.

Potential for a less stressful exam period and process

A consistent pattern across the interviews is the experience that the portfolio exam attenuates the stress experienced in the exam period. This is attributed to the circumstance that the portfolio invites the students to embark on their final assignment early on. For example, this is expressed by a Danish master anthropology student in the following manner:

I have actually been very pleased with the portfolio exam in all classes, and it is my impression that all other Danish students have also been really pleased with this exam form, because it is less stressful during the exam period, in that you have a solid foundation, given that you have already written the portfolio.

Importantly, the stress relieving gain of the portfolio exam is not dependent on how fine-polished the portfolios are written up during the course. This is illustrated in the following citation, where an international bachelor student at anthropology explains why the portfolio has been fruitful for him:

I liked having to hand in throughout the course, because that last semester was kind of extraordinary for me, it was very busy, so that helped me to get at least some ideas down. I was not aiming to get something really good down when I was working on those drafts, but just something that could be workable. And it was good for me in that regard, not going insane with everything else going on. So, that is how the portfolio was most useful, and the process was far less stressful more me.

One interesting finding, however, is that the stress relieving potential seems contingent on the level of coordination within and between courses. Issues may arise if a course lacks over-all structure or the students are following several courses with colliding portfolio submission dates. Not only is this experienced as stressful, but may also lead the students to abstain from handing in portfolios. This is highlighted by a bachelor sociology student:

It has been too challenging with two unrelated portfolio courses running in parallel. The teachers did not seem to have talked to each other, so the portfolios were overlapping, which created a rather hectic period, which in turn led my group to opt out of one of the portfolios. So, one could say that a challenge might be that it required that it was quite well-structured from the beginning, so it made sense to hand-in something, especially when it was a portfolio integrating two courses.

In-depth engagement with literature and lectures

Across the interviewed population, sociology and anthropology students alike, we find a general appreciation of portfolio assignments. This is linked to the experience that portfolios promote a more in-depth engagement with the course readings and lectures. Instead of merely reading the texts, the students highlight how the portfolios make them work with the

readings throughout the course. This is neatly formulated by an anthropology master student:

We had readings, but in order to fully understand them, you had to work with them. Because if you did not do that, then I would read them and then they would simply just vanish as sand between my fingers. After one month or so, then I can barely remember what this text was about, but if I have been working with and writing about it then I can remember it.

In addition to this, other students highlight that portfolios help them to improve their academic writing skills and offer a playing ground where one can learn by doing and failing, without having to be concerned about the final grade. This is expressed by an international bachelor student at Anthropology, who failed his exam in the first attempt. Interestingly, he still found that he had learned a lot by the portfolio exam, also in contrast to traditional essay exam he was about to hand in another course:

We did three portfolios and it is logical that when you make several mistakes the first time, you will make fewer mistakes the second time, and the third time you almost understand how to develop the exam. But, now I am enrolled at a course with an essay exam, so probably I will have to repeat the exam—we never did any example of how to do the exam and I feel uncomfortable.

Deep, creative, and less mark-focused

We asked the interviewees to assess their relative learning-outcomes of portfolio vis-à-vis a traditional essay exam. Many, although not all, students express a larger satisfaction with the portfolios and most students prefer this exam over the traditional essay. Among other things, this is linked to their experience that the portfolios, overall, allow for a more in-depth and extensive learning experience, in contrast to its more shallow essay counterpart. This is captured in the following citation with a sociology master student:

I think I spend more time on portfolio assignments, even if they have as many pages as an essay. Because you spend so much time on it, you have it in your hands so many times, you really learn a lot ... I think this is a great way to work, there is better time, and I also think that ideas are like a dough that should be allowed to rise over time, before it gets really good. Sometimes, when you have to write an essay in ten days, it is as if you just have to take the first and best idea, because now you just have to get started. Something else just happens when you have the time to think about the topic more carefully.

Another student, a female bachelor student at anthropology, expresses similarly that the portfolio exam improves the in-depthness of the learning experience. What is more, she highlights that the process of working with the portfolio exam is felt free and creative:

Actually, I think I could absorb myself more into it and be more free ... I could be more experimental and then I ended up being really interested in the literature cited in the course readings. And that is how you develop interests and I think that was really important for me at that time, so it was a very free process. I ended up being highly motivated to write the exam and be very satisfied with the outcome, primarily with what I learned but also with what I produced.

Fragile foundations: Course structure and student competencies

Despite the overall positive experience of the portfolio assignment across the interviews, data also indicates that the success of the exam rests on a somewhat fragile foundation. As mentioned, issues may arise when students are following several courses with overlapping portfolio assignments and deadlines. This is also highlighted by another sociology master student, who finds that it is hard to attend a portfolio based course, combined with full ECTS points and given the fact that the semesters are fairly short.

Furthermore, several students highlight that the success of the portfolio exam relies on a clear course structure—for example, with respect to what is expected, the overall purpose of writing the portfolios, and the formalities of the portfolio. This is particularly important, because the exam form requires active participation from the students throughout the course. As such, if the course structure surrounding the portfolio exam is vague, the motivation to engage and hand in the papers may erode. This is summarized by a bachelor sociology student:

It requires something from the student along the way, so you want to see the benefit of your efforts during the semester. And if you can, you are willing to put that extra into it, which the portfolio is. But, as soon as you cannot see this, then the idea seems to vanish, and therefore we were inclined to skip one of the portfolios.

An further issue raised by both Danish students and teachers is that international exchange students may have different academic traditions, written and oral alike, which in turn may pose a challenge when writing the portfolios and in the provision of peer feedback. In addition to this, some of the interviewees express the concern that the institutions do not do enough to address this issue, for example, by offering courses tailored to improve the skillset of international students.

Peer feedback: Good in theory, often bad in practice

Across most portfolio exam based courses, peer feedback plays a key role—and for good reasons, given that peer feedback overall is considered an efficient way to enhance student engagement, learning outcomes, and the overall academic achievement (see e.g., Buckley et

al. 2010; Kariman & Moafi 2011). It is also known, however, that peer feedback does not automatically lead to positive effects (Hattie & Timperley 2007), for example, because the students doubt their own and their peers' qualifications to provide feedback (Hanrahan and Isaacs 2001).

Our findings concur with this double-edged nature of the peer feedback in the courses. Thus, most of the students acknowledge the potential values of portfolio related peer feedback—not only in terms of improving their work, but also as a means to demystify the level of other students' capacities and as such gain confidence to actively partake in the course. This latter point is stressed by a Danish master anthropology student:

I believe that it makes a difference that you are part of the group and work on something and let other people see what you have been writing—especially, something that is not completely finished. Even though you expose yourself, I think it makes it easier to make comments during class, because I have already been through one group feedback session, where we all exposed ourselves. And, then, I also think that there is a social element to the feedback processes, which is important. Because at the elective courses, typically, you do not know anybody or only very few.

The feedback model faces several serious challenges, however. This may relate to the issue that some students do not hand in their portfolios and that some students simply do not provide feedback to their peers: “I would give feedback, but did not get any in return. Two other people would submit to our group, but they would not give feedback, so I figured I would get feedback from someone else.” Here, the broader issue seems to be that the course structure assumes that everyone hands in and provides feedback, but in practice, this is not always the case.

A related issue, expressed below by a sociology bachelor student, concerns that the students may not have sufficient skills and knowledge to give relevant feedback to their peers. This may be particularly problematic for students early in their studies, as well as for those international students who are trained in different scholarly traditions. When practiced as a pure student-to-student feedback model, this may translate into the experience of receiving and providing shallow comments, focused on formalities, and with a limited potential to improve the learning output:

To give and receive peer feedback is a fine practice, but it has been a little frustrating that it was the only thing that was done—that there was no feedback from the lecturer to the student. So, we just guided ourselves and this felt uncertain. I think reading other peoples' assignments gave something, but it would have been nice if it was not the only thing, because at times, it could feel like we were all confused,

blind guiding other blinds. So maybe it would be better, if the teachers had been part of it, been more active, giving the feedback a clearer direction.

Similar student experiences are found among psychology and economy students at University of Copenhagen (Müllen et al., in press). While the student group in class may, overall, lack the skill-set to offer relevant feedback, another challenge is linked to student groups with mixed skills and diverse academic backgrounds. This may challenge the whole setup of feedback groups and even lead students to dismantle the course-specific groups and self-organize new ones with fellow-students from outside the course. As a Danish anthropology master student tells:

I was in a group with a couple of international students, who were not anthropologists, so it was really as if we started from scratch. They could not really give me useful feedback, but I could give them feedback that they found useful... It means that the feedback they provided was by expressing that they thought my paper was really good. That is nice to be told, but there were no suggestions as to how I could improve my paper. So, I created a feedback group with fellow-students from my cohort who had taken their bachelor and participated in several portfolio based courses.

What here seems to be a uniformly negative assessment of peer feedback is, however, later modified by the same student:

Even though they could not provide me with any feedback, I still believe that I got something out of providing them with feedback. Because, it is always a process when you explain something to other people and you always realize something. When I provided them feedback, I explained my own structure and then I realized how I had structured my own paper, because it was not spelled out for myself—I had not really given it much thought—but when I had to explain it, it became explicit for myself.

Thus, despite not receiving the expected, the student still learns something important by taking the role as a feedback provider. By returning to her own work as part of the feedback process, she acquires a higher level of reflection towards her own work. What was previously tacit becomes explicit. This observation is in line with studies suggesting that the process of providing feedback may enhance student self-reflection and critical thinking (Nicol et al. 2006, 2014; Li et al. 2010).

The interviews indicate a number of ways to improve the feedback system surrounding the portfolio. First, it is suggested by students that it should be mandatory to hand in the portfolios, given that this would increase the number of potential feedback givers and support the

feedback system overall. Second, it is suggested that the institutions develop and offer more thorough guidelines for how to compose the portfolios and provide feedback. Third, a majority of the interviewed students highlights that the teachers should play a more active role in the feedback sessions, as one puts it in a nutshell: “Portfolios only make sense if the feedback is prioritized by the teacher.” Interestingly, however, the students do not necessarily request more detailed written feedback, which obviously would be overly expensive for the university. Rather, they seem to ask for a more dialogue based feedback process, allowing them to develop their ideas and sharpen their arguments together with the teacher. This request agrees with Nicol’s (2010) argument that the common dissatisfaction with written feedback suggests that academic staff should embrace a feedback style that is less one-way and more dialogical in nature.

QUANTATIVE ANALYSIS

The above qualitative analysis leaves an overall positive picture of the portfolio, despite the challenges that the students also mentions. Next, we will consider whether these positive experiences correspond with measurable, behavioral implications of attending portfolio based courses. As mentioned, we test two hypotheses: H1: Portfolio based courses are associated with higher exam grades. This expectation is in line with prior research suggesting that portfolio exams may enhance the quality of student learning and assignments (Buckley et al. 2010). H2: Portfolio based courses are associated with higher levels of exam enrolment. This prediction is plausible given research indicating that portfolios may increase student satisfaction and participation (Tiwari & Tang 2003).

Method

The data for the quantitative analysis was records of official exam information of $N = 723$ students, nested across 20 anthropology courses. The courses focused thematically on migration issues, and were mainly offered on BA/MA level, between 2013 and 2016. Data was obtained from the Department of Anthropology and was anonymized for all personal information (note that the study, therefore, do not need to be reported to the Danish Data Protection Agency). Specifically, we were provided with lists of course participants, containing information such as the final exam grade, or whether not the student enrolled to the exam or not. For each of the 20 classes, we then merged this information with records of the exam type, as described in KU’s official course catalogue, either the current (kurser.ku.dk) or old system (sis.ku.dk).

Data was estimated with binominal (binary) and ordinal logistic regression models, using Stata 14’s “logit” and “ologit” modules. Note that data has a hierarchical structure—with students nested in classes—that potentially violates the regression assumption of independence of observations. Therefore, the regression models are specified with cluster-corrected/robust standard errors, which may be applied as a solution to this estimation issue.

Further, the strength of the estimated evidence was assessed with both frequentist and Bayesian approaches—i.e., p -values and Bayes factors. It is known that null hypothesis testing relying on p -values on the traditional 5-percent alpha-level are vulnerable to false-positives and Bayes factors have been suggested as more robust alternative (García and Puga 2018; Wagenmakers 2007). Adding to this, Bayes factors also allows for the assessment of evidence in favor of the null (i.e., non-associations), which cannot be done with p -values. Specifically, the Bayes factors was approximated from Bayesian Information Criteria (BIC). To evaluate the Bayes factor evidence, the following commonly used thresholds were applied (Jarosz and Wiley 2014): no evidence (~ 1), not worth more than a bare mention (< 3 or $> 1/3$), substantial (3 or $1/3$), strong (10 or $1/10$), very strong (30 or $1/30$), and decisive (> 100 or $< 1/100$).

Measures. We included two dependent variables. First, exam grade was included as categorical outcome with four ordinal levels, where 0 = that the student performed with a fair (4 or D), adequate (02 or E), or inadequate (00 or Fx) performance; 1 = the student performed good (7 or C); 2 = the student performed very good (10 or B); 3 = the student performed excellently (12 or A). Note that the lowest mark in the Danish grading system, the unacceptable performance (-3 or F), was excluded because it typically is given to students that hands in a blank paper. Also note that we had to collapse the fair/adequate/inadequate marks together in order to construct a reference category with sufficient observations. Second, exam enrolment was included as a binary outcome, where 0 = the student deregistered from the exam and 1 = the student enrolled for the exam.

Table 1
Descriptive statistics

Variables	n	M	SD	Min	Max
Exam grade	400	1.64	0.86	0	3
Exam enrolment	687	0.68	0.46	0	1
Portfolio	723	0.58	0.49	0	1
Class size	723	40.52	12.40	14	58
Class size (standardized)	723	0.17	0.48	-0.86	0.85
Re-exam	723	0.11	0.31	0	1

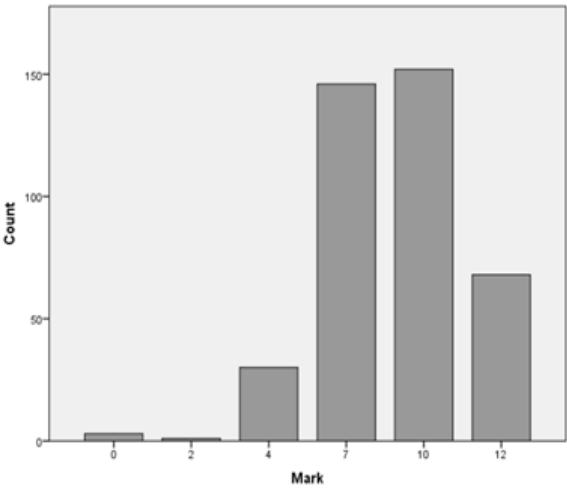
The chief independent variable of interest was the exam form of the course, where 1 = the course was portfolio based and 0 = the course utilized another exam form (e.g., written essay). Further, to account for omitted-variable bias, we included two control variables. First, the class size was captured as the number of students in each class and this continuous measurement was standardized by subtracting the mean and dividing by two standard deviations, as to obtain estimates comparable with binary predictors (Gelman 2008). Second, re-exam was included as a binary control, where 1 = the student finalized the course at the re-exam and 0 = the student took the ordinary exam. Importantly, this controls for the circumstance

that students taking the re-exam may be required to hand in traditional essays, despite the portfolio structure of the course.

Quantitative results

There is a notable negative skewness of the exam grades in data (see Figure 1), with 10 being the most frequent mark across the sample and with few low grades and more than 90% of all marks being 7 or above. The outlier illustration of this pattern is the mark 2, which is only found once across the whole material. Further, across the material, 68% of the students have enrolled to the ordinary exam, while 32% have deregistered from the exam.

Figure 1
Histogram of marks across the sample ($n = 400$)



Note. The lowest mark (-3) is not shown, given that this mark is excluded from the analysis—across the raw data, there is 14 cases of this failing marks.

Table 2 presents the estimated results of the ordinal logistic regression model. Contrary to H1, the portfolio exam was not found to be significantly associated with higher exam grades than other exam forms. The related Bayes factor of 2.7 suggests that data is insensitive in distinguishing between whether the predictor is associated or non-associated with the grade outcome. Further, both included controls are statistically insignificant, and the related Bayes factors offer evidence in favor that these factors are non-associated with the exam grade.

Table 2

Ordinal Logistic regression of exam grade

Variables	OR	<i>p</i>	95% CI	BF ₀₁
Portfolio	1.47	.164	[0.85, 2.54]	2.70
Class size	0.73	.220	[0.44, 1.21]	5.44
Re-exam	0.86	.580	[0.49, 1.48]	17.20

Note. BF₀₁ = Bayes factor of H0 over H1.

Table 3 presents the results of the binominal logistic model. Again, against our prediction (H2), the portfolio exam was not positively associated with the exam grade—in fact, the related Bayes factor offered compelling evidence in favor of a non-association with the outcome. The class size control yields a similar results, with an insignificant *p*-value and a Bayes factor suggesting evidence for the null.

Table 3

Binominal Logistic regression of exam enrolment

Variables	OR	<i>p</i>	95% CI	BF ₀₁
Portfolio	0.88	.603	[0.53, 1.44]	2.70
Class size	0.97	.900	[0.55, 1.68]	5.44

Note. OR = odds ratios. CI = confidence intervals. BF₀₁ = Bayes factor of H0 over H1. Compared with Table 1, the re-exam is not included as control, given that this factor by definition is linked to the exam enrolment outcome.

DISCUSSION AND RECOMMENDATIONS

The objective of the current TLHE project was to evaluate the use of portfolio assignments at the Departments of Anthropology and Sociology, with respect to the students' experiences of this exam and the potential, behavioral implication of attending portfolio based courses. Our qualitative results suggest that the students overall are positive towards the portfolio exam structure. This is attributed to the experience that portfolio based exams are less stressful and are stimulating a more in-depth and creative engagement throughout the course. Regarding the peer feedback element with forms part of most courses, the students mentioned several positive aspects. This includes the potential of enhancing the learning outcome and of gaining self-confidence by sharing your concerns with your peers, learning from them, and by demystifying what the other students are capable of.

However, we also identify several challenges. These may arise due to practical issues such as overlapping deadlines or vague guidelines for how the students are expected to compose the portfolios. Further, students who are early in their studies or who are not trained in the

Danish academic tradition may find difficulties in meeting the often implicit yet expected assumptions about what constitutes “good” scholarly work and “sound” feedback.

Next, we quantitatively examined whether courses with portfolio exam were associated with higher grades (H1) and exam enrolments (H2), when compared to courses with traditional exams. Contrary to both hypotheses, our regression results suggest that portfolio based courses are neither associated with higher grades nor exam enrolments. This finding is consistent with recent meta-analytical evidence showing that peer feedback assessments are not statistically associated with higher academic performance than teacher based assessments (Double 2018).

Taken together, our results suggest that portfolio assignments should not be embraced because they promote positive, behavioral outcomes. Rather, the justification of portfolios, including the related peer feedback practice, lies in the potential for yielding more positive student experiences. This observation suggests that the, at times, overly positive depiction of portfolio exam in the literature should be specified with respect to *what aspect* of the student practice—the lived or the quantifiable—that may be improved.

In considering the implications of our findings, it is noteworthy that both institutions offer very few guidelines, for teachers and students alike—see e.g. the enclosed Appendix presenting the only and very brief guidelines existing at the departments. This highlights that the implementation of the portfolio exam is highly varied across courses, with large differences in how much time and energy the teachers invest in its implementation. This situation is particularly problematic given our finding that the adoption of portfolios rest on fragile foundation—one where a lack of structure may erode the meaningfulness of working with the portfolios.

Given the above, we offer the following recommendations. First, there is a need for guidelines aiding teachers to successfully adopt portfolios in their courses. These could serve as inspiration catalogues, with lessons learned and “does” and “don'ts,” and such would be particularly helpful for early career and external/temporary staff. Supporting the development of such material, there is a need for a more systematic exchange of experiences and practices, within but ideally between the two departments.

Second, in order to equip international students (unfamiliar with the Danish academic tradition) with the skill-set needed to partake in portfolio based courses, we suggest the development of the course tailored to address this issue. Specifically, such courses could train the relevant international student in how to develop a problem statement and argument, how to compose portfolios and essays, and practice their feedback skills—that is, academic abilities, which most Danish students have encountered throughout their educational trajectory. Ideally, these courses could be jointly offered by Department of Anthropology and Sociology.

Third, given our finding that the students are not requesting more written but rather a more dialogical teacher feedback, we suggest the adoption of “teacher-supervised peer-feedback” practice (or, what alternatively may be described as a “mini-conference” type of peer feedback). This involves that the students are providing feedback to each other, while being supervised and guided verbally by the teacher—who has not read the portfolios systematically. This would be a cost-efficient way to accommodate what the students are requesting: a more active teacher role in the feedback sessions. Such practice has been successfully implemented in the course Advanced Culture, Lifestyle and Everyday Life, taught at Department of Sociology by one of the authors of the current project.

Finally, we would like to mention two limitations of the current study. First, it should be acknowledged that that exam grade outcome is a questionable measurement of exam quality and learning outcomes. This is also indicated in the current interview material, where several of the students explain that they have not received higher grades in their portfolio based courses—despite their experience that the overall learning outcome is greater. Second, it should be mentioned that we have interviewed a fairly small sample of students, from specific courses within only two social science departments. As such, the robustness of the reported qualitative patterns should be interpreted with caution and it should be stressed that our findings are local and do not necessarily generalize to other educational settings.

REFERENCES

- Buckley, S., Coleman, J., & Khan, K. (2010). Best evidence on the educational effects of undergraduate portfolios. *The Clinical Teacher*, 7(3), 187-191.
- Carpenter, C. D., Ray, M. S., & Bloom, L. A. (1995). Portfolio assessment: Opportunities and challenges. *Intervention in School and Clinic*, 31(1), 34-41.
- Davis, M. H., Ponnampereuma, G. G., & Ker, J. S. (2009). Student perceptions of a portfolio assessment process. *Medical Education*, 43(1), 89-98.
- Double, K. S. (2018). The Impact of Peer Assessment on Academic Performance: A Meta-analysis of (Quasi) Experimental Studies. *PsyArXiv*. Preprint, October 16.
- García, Ana María Ruiz-Ruano and Jorge López Puga. 2018. "Deciding on Null Hypotheses Using P-Values or Bayesian Alternatives: A Simulation Study." *Psicothema* 30(1):110-15.
- Gelman, Andrew. 2008. "Scaling Regression Inputs by Dividing by Two Standard Deviations." *Statistics in Medicine* 27(15), 2865-73.
- Hanrahan, S. J., & Isaacs, G. (2001). Assessing self-and peer-assessment: The students' views. *Higher Education Research & Development*, 20(1), 53-70.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Jarosz, Andrew F and Jennifer Wiley. 2014. "What Are the Odds? A Practical Guide to Computing and Reporting Bayes Factors." *The Journal of Problem Solving* 7(1).

- Kariman, N., & Moafi, F. (2011). Effect of portfolio assessment on student learning in pre-natal training for midwives. *Journal of Educational Evaluation for Health Professions*. 8(2).
- Li, L., Liu, X & Steckelberg, A.L. (2010). Assessor or assessee: How student learning improves by giving and receiving peer feedback. *British Journal of Educational Technology*, 41, 525-536.
- Mubuuke, A. G., Kiguli-Malwadde, E., Kiguli, S., & Businge, F. (2010). A student portfolio: the golden key to reflective, experiential, and evidence-based learning. *Journal of Medical Imaging and Radiation Sciences*, 41(2), 72-78.
- Nicol, D. & d. Marfarlarne-Dick (2006): Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education*. 31(2), 199-218.
- Nicol, D., A. Thomson & C. Breslin (2014): 'Rethinking feedback practices in higher education: a peer review perspective'. *Assessment and Evaluation in Higher Education*. 39(1), 102-122.
- Tiwari, A., & Tang, C. (2003). From process to outcome: the effect of portfolio assessment on student learning. *Nurse Education Today*, 23(4), 269-277.
- Wagenmakers, Eric-Jan. 2007. "A Practical Solution to the Pervasive Problems of P Values." *Psychonomic Bulletin & Review* 14(5), 779-804.

APPENDIX

Guidelines for obligatory portfolio assignments [Anthropology, 2014]

The course lecturer decides how many portfolios (between 3 and 7) students must hand in during the course.

The different portfolio assignments are defined by the course lecturer and may include written assignments, oral presentations, poster presentations, or other assignments.

The purpose of portfolios is to ensure that students work in depth with the course material during the course rather than at the end of the course.

The lecturer sets deadlines for the portfolio assignment so that they are spread out over the 7 weeks. Folders will be created on Absalon for the submission of written portfolios. Three of the portfolios will be assessed and cannot be reworked after the deadline for submission.

Assignments will be assessed jointly. However, the lecturer can decide to attach different weight to the different assignments. If the lecturer plans to do so, this has to be announced at the beginning of the course.

The portfolios should be used actively in the course. The lecturer may give feedback on some of the the portfolio assignments during the course. Otherwise students will be involved in giving feedback to fellow students. However, none of the assignments will be graded until after the end of the course.

It is requested that students hand in 3-7 assignments.

- 1) One assignment must be a written assignment.
- 2) The lecturer defines 1-5 additional assignments, e.g. written assignments, oral presentations, poster presentations or other assignments of relevance for the course.
- 3) The lecturers should consider defining (at least) one assignment per learning outcome.
- 4) Portfolios can be done in groups, but at least one of the written assignments has to be done individually so that all students can be assessed individually.
- 5) Maxium length of the total number of written portefolios: 1 person: 30.000 key strokes, 2 persons: 40.000 key strokes, 3 persons: 45.000 key strokes, 4 persons: 50.000 key strokes

Example of portfolios from previous course:

Introduction to Medical Anthropology

1st Assignment

Identify explanatory models and therapeutic interventions for catching a cold based on an interview with one of your classmates. What do you normally do when you catch a cold and how do you explain the condition? Use concrete examples and compare them to the physical, social and cultural interventions presented in the texts. Discuss what theoretical concepts might be particularly useful to analyze flu in your society.

2nd Assignment

Make a detailed description of a healing session based on concrete observation or participant observation (2-3 pages). Explain the purpose of the consultation and try to identify the methods used to treat the patient. What difference does it make if we look at these methods as icons of power rather than cultural symbols? (Some churches in Copenhagen offer healing sessions on a regular basis fx the Pentecostal church in Nørrebro and the Bethlehem church, some healing schools fx Steen Kofod provide free healing – check out!)

3rd Assignment

Add an interview to your description of a healing session from last week stressing aspects of uncertainty and control. Reflect on how different perspectives on the concept of experience affect the result when analyzing your data?

4th Assignment

Search for stories of the highly sensitive person on the Internet and look for their narrative structure. Make a short analysis that demonstrates the storyline, the different roles of the actors and the plot. What does the story tell us about the underlying cultural assumptions regarding sensitivity?

5th Assignment

Make a small survey of 8-10 people to test what they know and think of the use of St John's wort (perikon) and its healing effects. Report your results and reflect on the interaction between mind and body. (Remember that the Botanical garden is right next to the CSS campus).

6th Assignment

Identify particular illness categories where the monitoring of numbers plays a particular role. Describe the actual practice of living by numbers through concrete case material based on interviews, Internet sites or ethnographic literature.

7th Assignment

Describe the therapeutic itineraries of one or more patients based on the case material produced during this course. Make a model of the various steps taken and relate them to changes in explanatory models or practical circumstances. Consider the ethics of professional transformations in this process.